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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,414	01/27/2004	Pamela M. Mazurek	1391-1572	2877

28455 7590 08/12/2008

WRIGLEY & DREYFUS 28455
BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER	
GWARTNEY, ELIZABETH A	

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
08/12/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/767,414	MAZUREK ET AL.	
	Examiner	Art Unit	
	Elizabeth Gwartney	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-21, 25-32, and 36-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reed et al. (US 5,651,936) and in view of Cerestar ("Maltidex M 16311 – Technical Information").

Regarding claim 1, Reed et al. discloses:

A method of making a chewing gum composition comprising the steps of:

a) making a syrup by evaporating water from a mixture (C2/L47-48) comprising:

i) an aqueous sorbitol solution containing at least 50% sorbitol (C2/L48-49);

ii) a plasticizing agent selected from the group consisting of glycerin, propylene glycol and mixtures thereof (C2/L49-51); and

iii) a hydrogenated starch hydrolyzate (see maltitol, C5/L8-12),

iv) wherein the final evaporated syrup composition comprises less than 10% moisture (C5/L57-60), about 5% to about 20% plasticizing agent (see about 17% to 40% glycerin, C5/L38), at least 50% sorbitol (see about 55% to about 80% sorbitol, C5/L37-38), about 3% to about 25% maltitol (see about 3% to about 10% maltitol, C5/L39).

b) mixing the syrup with gum base and additional chewing gum ingredients to produce the chewing gum composition (C2/L53-55).

While Reed et al. discloses a syrup composition including a hydrogenated starch hydrolysate as an anticrystallization agent (i.e. maltitol, C5/L8-12), the reference does not explicitly disclose a hydrogenated starch hydrolysate in syrup form containing at least 1.5% hydrogenated oligosaccharides with a DP of 3 or greater in the final evaporated syrup.

However, Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content (see 76% on a dry basis, "Typical data") and hydrogenated oligosaccharides having a DP of 3 or greater (see 22% on a dry basis, "Typical data") for use in chewing gum applications as an anticrystallization agent. Therefore, the use of said hydrogenated starch hydrolysate including Maltidex M 16311 syrup would be obvious to one of ordinary skill in the art, because it would amount to nothing more than a use of a known form of hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

Further, the final syrup will necessarily comprise at least 1.5% hydrogenated oligosaccharides in the final evaporated syrup based on the combination of Maltidex M 16311 and the sorbitol syrup composition of Reed et al.

Regarding claim 2, modified Reed et al. discloses all of the claim limitations as set forth above and also discloses that the step of mixing the syrup with the gum base comprises:

a) providing about 5% to about 95% gum base (Table 3);

b) providing about 5% to about 95% of a bulking agent, the bulking agent comprising the syrup (C8/L29-30; see sorbitol syrup comprising about 5% to 50% of composition, C8/L39-41);

c) providing about 0.1% to about 15% flavoring agent (C9/L19-21); and

d) mixing the gum, bulking agent and flavoring agent to form the chewing gum composition (C9/L40-49).

Regarding claims 3-5 and 7, modified Reed et al. discloses all of the claim limitations set forth above. Further, Reed et al. discloses that the syrup comprises over 30% of the chewing

gum composition (Table 3 – Examples 10-11), the additional chewing gum ingredients comprise a flavoring agent (C9/L19, Claim 5) and a powdered bulking agent (Claim 5, C9/L13-18), the chewing gum composition is sugarless (C3/L39-42), and that the syrup, after evaporation, has a water content of less than about 4% (C10/L65-C11/L1; see preferred embodiments contain 2% water, C5/L62-63).

Regarding claim 6, modified Reed et al. discloses all of the claim limitations set forth above. Reed also discloses a mixture, prior to evaporation, comprising about 52% to about 87% sorbitol solution (see 75%, C10/L66(), about 8% to about 20% plasticizing agent (see 20%, C10/L67), and about 5% to about 30% hydrogenated starch hydrolyzate (i.e. maltitol) (see 5%, C11/L1). While Reed et al. discloses a mixture including a hydrogenated starch hydrolysate (i.e. maltitol, C5/L8-12), the reference does not expressly disclose that it is in a syrup form. Cerestar teaches a maltitol product (i.e. Maltidex M 16311), for use in chewing gum as an anticrystallization agent which is available in syrup form ("Typical data"). The motivation for adding Maltidex M 16311 to the sorbitol syrup of Reed et al., as taught by Cerestar, is set forth above.

Regarding claim 8, Reed et al. discloses:

A chewing gum composition comprising a homogenous mixture of gum base and a bulking agent wherein the bulking agent comprises an aqueous sugarless syrup comprising at least 50% sorbitol, about 3% to about 25% maltitol, about 8% to about 20% plasticizing agent and wherein the chewing gum composition has less than 2% moisture and said syrup comprises over 30% of said composition (Table 3 – Examples 10-11).

Reed does not disclose that the composition includes at least 1.5% hydrogenated oligosaccharides having a DP of 3 or greater.

However, Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content (see 76% on a dry basis, "Typical data") and hydrogenated oligosaccharides having a DP of 3 or greater (see 22% on a dry basis, "Typical data") for use in chewing gum applications as an anticrystallization agent. Therefore, the use of said hydrogenated starch hydrolysate including Maltidex M 16311 syrup would be obvious to one of ordinary skill in the art, because it would amount to nothing more than a use of a known form of hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

Further, the final syrup will necessarily comprise at least 1.5% hydrogenated oligosaccharides in the final evaporated syrup based on the combination of Maltidex M 16311 and the sorbitol syrup composition of Reed et al.

Regarding claims 9-10, modified Reed et al. discloses all of the claim limitations as set forth above and further discloses that the syrup comprises over 40% of the composition (Table 3 – Ex. 11) and the sorbitol comprises over 60% of said syrup (C10/L65-C11/L1).

Regarding claim 11, Reed et al. discloses:

An aqueous syrup for use in making both stick and pellet chewing gum products (C9/L29-39) comprising, on a dry basis:

a) about 60% to about 80% sorbitol (see 70% sorbitolC10/L66-67),

b) about 8% to about 15% plasticizing agent selected from the group consisting of glycerin, propylene glycol and mixtures thereof (C2/L49-51; see about 17% to about 40% glycerin, C5/L38), and

c) about 5% to about 30% hydrogenated starch hydrolyzate solids (see about 5% maltitol, C10/L65-C11/L1)., the hydrogenated starch hydrolyzate solids containing , at least 4% maltitol on the dry basis of the syrup (see 5%, C11/L1).

While Reed et al. discloses a syrup composition including a hydrogenated starch hydrolysate as an anticrystallization agent (i.e. maltitol, C5/L8-12), the reference does not explicitly disclose a hydrogenated starch hydrolysate containing at least 1.5% hydrogenated oligosaccharides with a DP of 3 or greater in the final evaporated syrup.

However, Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content (see 76% on a dry basis, "Typical data") and hydrogenated oligosaccharides having a DP of 3 or greater (see 22% on a dry basis, "Typical data") for use in chewing gum applications as an anticrystallization agent. Therefore, the use of said hydrogenated starch hydrolysate including Maltidex M 16311 syrup would be obvious to one of ordinary skill in the art, because it would amount to nothing more than a use of a known form of hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

Further, the final syrup will necessarily comprise at least 1.5% hydrogenated oligosaccharides in the final evaporated syrup based on the combination of Maltidex M 16311 and the sorbitol syrup composition of Reed et al.

Regarding claim 12, modified Reed et al. discloses all of the claim limitations as set forth above but does not explicitly disclose that the oligosaccharides have a weight average DP of between about 4 and 5. When the composition recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent (MPEP § 2112.01). Here, Cerestar discloses a maltitol syrup identical in composition to the hydrogenated starch hydrolysate of instant claim, therefore, the weight average DP of the oligosaccharides is considered to be an inherent property.

Regarding claim 13, Reed et al. discloses all of the claim limitations as set forth above and also discloses that the syrup comprises about 3% moisture (C10/L65-C11/L1; see preferred embodiments contain 2% water, C5/L62-63).

Regarding claim 14, Reed et al. discloses:

A method of making a syrup for use in both stick and pellet chewing gum products (C9/L29-39) comprising the steps of:

a) providing sorbitol in an aqueous solution (C10/L66) having a solids content of at least about 50% sorbitol (C2/L48-49; see 70% sorbitol, C10/L67) and about 30% to about 50% water (see 30% water, C10/L67);

b) mixing (C2/L47) said sorbitol solution with

i) a plasticizing agent selected from the group consisting of glycerin, propylene glycol and mixtures thereof (C2/L50-51), and

ii) a hydrogenated starch hydrolyzate (see maltitol, C5/L8-12)

c) removing moisture from said mixture to product a syrup having a moisture content of less than about 10% (C5/L57-60).

While Reed et al. discloses a syrup composition including a hydrogenated starch hydrolysate as an anticrystallization agent (i.e. maltitol, C5/L8-12), the reference does not explicitly disclose a hydrogenated starch hydrolysate in syrup form containing at least 50% maltitol and at least 10% hydrogenated oligosaccharides with a DP of 3 or greater. However, Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content (see 76% on a dry basis, "Typical data") and hydrogenated oligosaccharides having a DP of 3 or greater (see 22% on a dry basis, "Typical data") for use in chewing gum applications as an anticrystallization agent. Therefore, the use of said hydrogenated starch hydrolysate including Maltidex M 16311 syrup would be obvious to one of ordinary skill in the art, because it would amount to nothing more than a use of a known form of hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

Regarding claims 15-16, modified Reed et al. discloses all of the claim limitations as set forth above in claim 14 and further discloses that the mixture comprises, on a dry basis, about 8% to about 25% plasticizing agent (see about 17% to 40% glycerin, C5/L38) and about 4% to about 25% maltitol (see about 3% to about 10% maltitol, C5/L39).

Regarding claim 17, modified Reed et al. discloses all of the claim limitations as set forth above but does not explicitly disclose that the oligosaccharides have a weight average DP of between about 4 and 5. When the composition recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent (MPEP § 2112.01). Here, Cerestar discloses a maltitol syrup identical in composition to the hydrogenated

starch hydrolysate of instant claim, therefore, the weight average DP of the oligosaccharides is considered to be an inherent property.

Regarding claims 18 and 19-21, modified Reed et al. discloses all of the claim limitations as set forth above. Reed et al. also discloses that evaporation is carried out under vacuum (C11/L1-2) wherein the syrup is evaporated to a moisture content of less than 5% or 3% respectively (see sugarless syrup used in examples 10-11, C10/L65-C11/L1). Further, Reed et al. discloses that the sorbitol solution comprises about 70% to about 30% water (C4/L39-42, C10/L67).

Regarding claim 25, Reed et al. discloses:

A chewing gum formulation comprising:

a) a water insoluble gum base (C6/L61-C7/L3); and

b) a water soluble portion which includes sorbitol, the sorbitol being present, at least initially, in the formulation as a syrup of aqueous sorbitol and comprising approximately 25% to about 65% by weight of the formulation, the syrup being created by coevaporating a solution that comprises, prior to coevaporation, approximately 52% to about 87% by weight aqueous sorbitol (see 75%, C10/L66), approximately 5% to about 30% by weight of a hydrogenated starch hydrolyzate (see 5% maltitol, C11/L1) and approximately 8% to about 20% by weight of a plasticizing agent selected from the group consisting of glycerin, propylene glycol and mixtures thereof (see 20% glycerin, C10/L67).

However, Reed et al. does not disclose that they hydrogenated starch hydrolysate is a syrup.

Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content and hydrogenated oligosaccharides for use in chewing gum applications as an anticrystallization agent. Therefore, the use of said hydrogenated starch hydrolysate including Maltidex M 16311 syrup would be obvious to one of ordinary skill in the art, because it would amount to nothing more than a use of a known form of hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

Regarding claim 26, modified Reed et al. discloses all of the claim limitations as set forth above. Further Reed et al. discloses that the syrup is created by coevaporating a solution (C11/L1-3) that comprises, prior to coevaporation:

a) approximately 55% to about 75% by weight aqueous sorbitol (see 75%, C10/L66);

b) approximately 5% to about 20% by weight hydrogenated starch hydrolyzate (see 5% maltitol, C11/L1); and

c) approximately 8% to about 15% by weight glycerin (see 20% glycerin, C10/L67).

While Reed et al. discloses a mixture including a hydrogenated starch hydrolysate (i.e. maltitol, C5/L8-12), the reference does not expressly disclose that it is in a syrup form.

Regarding claims 27-32, modified Reed et al. discloses all of the claim limitations as set forth above. Reed et al. also discloses that the syrup includes not more than 10% water (C10/L65-C11/L1). Further, Reed et al. discloses that the chewing gum formulation includes a crystalline form of sorbitol (Table 3), is sugarfree (Table 3- Examples 10-11, C3/L39-42), includes artificial sweeteners (Table 3- Examples 10-11), and includes glycerin besides the

plasticizing agent in the syrup (Table 3- Example 10). In addition, Reed et al. discloses that the water insoluble gum base is wax-free (C8/L4-6).

Regarding claim 36, Reed et al. discloses a method for producing chewing gum that includes sorbitol (Abstract) comprising the steps of:

a) providing a syrup consisting essentially of:

i) aqueous sorbitol (C10/L66),

ii) a plasticizing agent selected from the group consisting of glycerin, propylene glycol and mixtures thereof (see glycerin, C10/L67), and

iii) hydrogenated starch hydrolyzate (see maltitol, C111/L1),

b) evaporating water from the syrup (C11/L1-4); and

c) combining the evaporated syrup to additional chewing gum ingredients to create a chewing gum formulation (C11/L6-7, Table 3—Examples 10-11).

However, Reed et al. does not disclose that they hydrogenated starch hydrolysate is a syrup.

Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content and hydrogenated oligosaccharides for use in chewing gum applications as an anticrystallization agent. Therefore, the use of said hydrogenated starch hydrolysate including Maltidex M 16311 syrup would be obvious to one of ordinary skill in the art, because it would amount to nothing more than a use of a known form of hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

Regarding claim 37, modified Reed et al. discloses all of the claim limitations as set forth above in claim 36. Reed et al. also discloses that the syrup is created by coevaporating a solution that comprises, on a dry basis:

a) approximately 55% to about 87% by weight sorbitol (see 70%, C10/L66);

b) approximately 4% to about 25% by weight maltitol (see 5% maltitol, C11/L1);

d) approximately 5% to about 20% by weight glycerin (see 20% glycerin, C10/L67).

While Reed et al. discloses a syrup composition including a hydrogenated starch hydrolysate as an anticrystallization agent (i.e. maltitol, C5/L8-12), the reference does not explicitly disclose a hydrogenated starch hydrolysate in syrup form containing at least 1.5% hydrogenated oligosaccharides with a DP of 3 or greater in the final evaporated syrup.

However, Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content (see 76% on a dry basis, "Typical data") and hydrogenated oligosaccharides having a DP of 3 or greater (see 22% on a dry basis, "Typical data") for use in chewing gum applications as an anticrystallization agent. Therefore, the use of said hydrogenated starch hydrolysate including Maltidex M 16311 syrup would be obvious to one of ordinary skill in the art, because it would amount to nothing more than a use of a known form of hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

Further, the final syrup will necessarily comprise at least 1.5% hydrogenated oligosaccharides in the final evaporated syrup based on the combination of Maltidex M 16311 and the sorbitol syrup composition of Reed et al.

Regarding claim 38-41, modified Reed et al. discloses all of the claim limitations as set forth above. Further, Reed et al. discloses that the syrup includes not more than 10% water (C10/L65-C11/L1) and includes a crystalline form of sorbitol (Table 3, Examples 10-11). Reed et al. also discloses that the chewing gum formulation is sugarfree (C3/L39-42) and that the syrup comprises approximately 25% to about 65% by weight of the chewing gum formulation (Table 3 – Examples 10-11).

Regarding claim 42, Reed et al. discloses a chewing gum product containing sorbitol (Abstract) wherein the product is made from a composition comprising a syrup mixed into the composition (C9/L40-54), the syrup consisting essentially of:

a) aqueous sorbitol (C10/L66),

b) a plasticizing agent selected from the group consisting of
glycerin, propylene glycol and mixtures thereof (C10/L67, C4/L54-56); and

c) hydrogenated starch hydrolyzate (see maltitol, C5/L8-12, C11/L1).

However, Reed et al. does not disclose that they hydrogenated starch hydrolysate is a syrup.

Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content and hydrogenated oligosaccharides for use in chewing gum applications as an anticrystallization agent. Therefore, the use of said hydrogenated starch hydrolysate including Maltidex M 16311 syrup would be obvious to one of ordinary skill in the art, because it would amount to nothing more than a use of a known form of hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

Regarding claim 43, modified Reed et al. discloses all of the claim limitations as set forth above, and that the syrup is created by the coevaporation of a solution that comprises, prior to coevaporation:

a) approximately 52% to about 87% by weight aqueous sorbitol (see 75%, C10/L66);

b) approximately 4% to about 25% by weight maltitol (see 5%, C11/L1);

d) approximately 5% to about 20% by weight glycerin (see 20%, C10/L67).

While Reed et al. discloses a syrup composition including a hydrogenated starch hydrolysate as an anticrystallization agent (i.e. maltitol, C5/L8-13), the reference does not explicitly disclose a hydrogenated starch hydrolysate in syrup form containing at least 1.5% hydrogenated oligosaccharides with a DP of 3 or greater in the final evaporated syrup.

However, Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content (see 76% on a dry basis, "Typical data") and hydrogenated oligosaccharides having a DP of 3 or greater (see 22% on a dry basis, "Typical data") for use in chewing gum applications as an anticrystallization agent. Therefore, the use of said hydrogenated starch hydrolysate including Maltidex M 16311 syrup would be obvious to one of ordinary skill in the art, because it would amount to nothing more than a use of a known form of hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

Further, the final syrup will necessarily comprise at least 1.5% hydrogenated oligosaccharides in the final evaporated syrup based on the combination of Maltidex M 16311 and the sorbitol syrup composition of Reed et al.

Regarding claims 44-45, modified Reed et al. discloses all of the claim limitations as set forth above. Further, Reed et al. discloses that the syrup includes not more than 10% or comprises not more than 3% water respectively (C10/L65-C11/L1).

5. Claims 22-24 and 33-35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reed et al. in view of Cerestar ("Maltidex M 16311 – Technical Information") and in view of Dogliotti (US 4,105,801).

Regarding claim 22, Reed et al. discloses:

A method of making at least two different chewing gum compositions (Examples 10-11), at least one of the compositions being used to make stick chewing gum products (C9/L31-39), comprising the steps of:

a) evaporating a mixture comprising sorbitol solution, glycerin and hydrogenated starch hydrolyzate syrup to from an evaporated sugarless syrup (C10/L65-C11/L4); and

b) mixing the evaporated sugarless syrup with a first set of additional chewing gum ingredients comprising gum base, a sugarless bulk sweetener and a flavoring agent, to form a first chewing gum composition (Examples 10-11);

c) forming the first chewing gum composition into stick chewing gum products (C9/L31-39);

d) mixing the evaporated sugarless syrup with a second set of additional chewing gum ingredients different than the first set of additional chewing gum ingredients, the second set of additional chewing gum ingredients comprising gum base, a sugarless bulk sweetener and a flavoring agent, to form a second chewing gum composition (Examples 10-11); and

e) forming the second chewing gum composition into cores (see pellets, C9/L31-39);

However, Reed et al. does not disclose that they hydrogenated starch hydrolysate is a syrup.

Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content and hydrogenated oligosaccharides for use in chewing gum applications as an anticrystallization agent. Therefore, the use of said hydrogenated starch hydrolysate including Maltidex M 16311 syrup would be obvious to one of ordinary skill in the art, because it would amount to nothing more than a use of a known form of hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

While Reed et al. discloses chewing gum compositions used to make pellets or chunks (C9/L33-39), the reference does not explicitly disclose making coated chewing gum and coating the cores with sugarless coating.

Dogliotti teaches coating gum (C1/L28-30, C2/L64-67) with a sugarless coating (see xylitol, Abstract). Dogliotti teaches that sugarless coatings can help preserve the core and impart sweetness and desirable texture to the final product (C1/L19-32).

It would have been obvious to one or ordinary skill in the art at the time of the invention to have coated the chewing gum composition of Reed et al. with a sugarless coating as taught by Dogliotti for the purpose of preserving the core and imparting sweetness and desirable texture properties to the final product. Further, doing so would extend the shelf-life of the product.

Regarding claim 23, modified Reed et al. discloses all of the claim limitations set forth above. Reed et al. also discloses that the evaporated mixture has a solids content of about 50% to about 80% sorbitol (see about 55% to about 80%, C5/L37-38), about 4% to about 25%

maltitol (see about 3% to about 10% maltitol, C5/L39). However, Reed et al. do not disclose that the evaporated mixture has about 1.5% to about 5% hydrogenated oligosaccharides having a DP greater than 3 and with a weight average DP of between about 4 and 5.

However, Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content (see 76% on a dry basis, "Typical data") and hydrogenated oligosaccharides having a DP of 3 or greater (see 22% on a dry basis, "Typical data") for use in chewing gum applications as an anticrystallization agent. Therefore, the use of said hydrogenated starch hydrolysate including Maltidex M 16311 syrup would be obvious to one of ordinary skill in the art, because it would amount to nothing more than a use of a known form of hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

Further, the final syrup will necessarily comprise about 1.5% hydrogenated oligosaccharides in the final evaporated syrup based on the combination of Maltidex M 16311 and the sorbitol syrup composition of Reed et al.

Regarding the weight average DP of the oligosaccharides, when the composition recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent (MPEP § 2112.01). Here, Cerestar discloses a maltitol syrup identical in composition to the hydrogenated starch hydrolysate of claim 23 (c), therefore, the weight average DP of the oligosaccharides is considered to be an inherent property.

Regarding claim 24, modified Reed et al. discloses all of the claim limitations as set forth above. Further, Reed et al. discloses that the sorbitol solution comprises about 70% sorbitol and about 30% water (C10/L67), and the mixture, prior to evaporation, comprises about 52% to

about 87% of said sorbitol solution (see 75%, C10/L66), about 8% to about 20% glycerin (see 20% glycerin, C10/L67) and about 5% to about 30% hydrogenated starch hydrolyzate solids (see 5% maltitol, C11/L1).

Regarding claim 33, Reed et al. discloses a method for creating chewing gum compositions for use in making stick chewing gum products and chewing gum compositions used to make pellet chewing gum products (C9/L31-39) comprising the steps of:

a) coevaporating a solution that comprises, prior to coevaporation, approximately 52% to about 87% by weight aqueous sorbitol (see 75%, C10/L66), approximately 5% to about 30% by weight of a hydrogenated starch hydrolyzate (see 5% maltitol, C11/L1) and approximately 8% to about 20% by weight of a plasticizing agent selected from the group consisting of glycerin, propylene glycol and mixtures thereof (see 20% glycerin, C10/L67);

b) using the syrup to make a first chewing gum composition for stick chewing gum products (C9/L31-39), wherein the syrup comprises about 40% to about 65% (see 40%, Table 3 – Examples 10-11) of the first chewing gum composition; and

c) using the syrup to make a second chewing gum composition for pellet chewing gum products, wherein the syrup comprises about 30% to about 55% of the second chewing gum composition (see 40%, Table 3- Examples 10-11).

However, Reed et al. does not disclose that they hydrogenated starch hydrolysate is a syrup.

Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content and hydrogenated oligosaccharides for use in chewing gum applications as an anticrystallization agent. Therefore, the use of said hydrogenated starch hydrolysate including Maltidex M 16311 syrup would be obvious to one of ordinary skill in the art, because it would amount to nothing more than a use of a known form of hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

While Reed et al. discloses a method to make chewing gum compositions for pellets or chunks (C9/L33-39), the reference does not explicitly disclose making coated chewing gum and coating the cores with sugarless coating.

Dogliotti teaches coating gum (C1/L28-30, C2/L64-67) with a sugarless coating (see xylitol, Abstract). Dogliotti teaches that sugarless coatings can help preserve the core and impart sweetness and desirable texture to the final product (C1/L19-32).

It would have been obvious to one or ordinary skill in the art at the time of the invention to have coated the chewing gum composition of Reed et al. with a sugarless coating as taught by Dogliotti for the purpose of preserving the core and imparting sweetness and desirable texture properties to the final product. Further, doing so would extend the shelf-life of the product.

Regarding claim 34, modified Reed et al. discloses all of the claim limitations as set forth above. Additionally, Reed et al. discloses that the syrup is created by coevaporating a solution that comprises, prior to coevaporation:

a) approximately 55% to about 75% by weight aqueous sorbitol (see 75%, C10/L66);

b) approximately 5% to about 20% by weight hydrogenated starch hydrolyzate (see 5%

maltitol, C11/L1); and

c) approximately 8% to about 15% by weight glycerin (see 20% glycerin, C10/L67).

Reed et al. does not disclose that they hydrogenated starch hydrolyzate is a syrup. Cerestar teaches a maltitol product (i.e. Maltidex M 16311), for use in chewing gum as an anticrystallization agent which is available in syrup form ("Typical data"). The motivation for adding Maltidex M 16311 to the sorbitol syrup of Reed et al., as taught by Cerestar, is set forth above.

Regarding claim 35, modified Reed et al. discloses all of the claim limitations as set forth above and that the syrup includes not more than 10% water (C10/L65-C11/L1).

Response to Arguments

6. Applicant's arguments filed 06/04/2008 have been fully considered but they are not persuasive.

Applicant argues that while Reed et al. discloses an anticrystallization agent including maltitol (C5/L8-12), there is no statement in lines 8-12 that a hydrogenated starch hydrolysate (HSH) can be used, or that HSH is the same thing as maltitol. While it is true that that Reed et al. does not explicitly disclose that HSH is the same thing as maltitol, it is well known in the art that art that maltitol is a HSH (as evidenced by Federal Register). Applicants attention is drawn to the Federal Registrar (Vo. 70, No. 31, p. 7871/Section IV), which states that hydrogenated starch hydrolyzate or HSH is a generic term for various hydrogenated syrups also known by the terms sugar alcohols or polyols and include maltitol.

Applicant argues that Maltidex M 16311, taught by Cerestar, can not be used as the anticrystallization agent of Reed et al. since Maltidex M 16311 contains a significant amount of hydrogenated oligosaccharides having a DP over 2 and Reed et al. teaches that the anticrystallization agent needs to have a DP of 1 or 2. Further, applicant argues Reed et al. specifically teach against using alditols with a DP of 3 or greater as an anticrystallization agent. The argument is not found persuasive. While Reed et al. disclose that the anticrystallization agent is an alditol other than sorbitol and that the alditol should have a DP of 1 or 2 because alditols with a DP of 3 or greater cause an increased viscosity in the syrup (C5/L2-5), the reference also discloses that alditols, other than sorbitol, with a DP of 3 or greater may be present at a ratio to alditols with a DP of 1 or 2 of less than 2:3 (C5/L20-27). Clearly, given that alditols with a DP of 3 or greater are not excluded from the sorbitol syrup composition of Reed et al., it would have been obvious to one of ordinary skill in the art to have used Maltidex M 16311 as an anticrystallization agent in the sorbitol syrup composition of Reed et al. because it would amount to nothing more than a use of a known form hydrogenated starch hydrolysate for its intended use as an anticrystallization agent in a known environment to accomplish entirely expected results.

Applicant alleges unexpected results based on evidence presented in specification, Tables I-IV (p. 23-26), The question as to whether unexpected advantage has been demonstrated is a factual question. *In re Johnson*, 747 F.2d 1456, 1460, 223 USPQ 1260, 1263 (Fed. Cir. 1984). Thus, it is incumbent upon applicant to supply the factual basis to rebut the prima facie case of obviousness established by examiner. See, e.g., *In re Klosak*, 455 F.2d 1077, 1080, 173 USPQ 14, 16 (CCPA 1972). The applicant has failed to meet their burden on several fronts.

First, the applicant's evidence of nonobviousness is deficient in that it does not show that the syrup defined by their independent claims to be unexpectedly superior to the sorbitol syrup compositions of Reed et al. The disclosure of Reed et al. is not limited solely to the information contained in Tables I-IV. Specifically, as noted above, the reference clearly suggests that alditols with a DP of 3 or greater may be present at a ratio to alditols with a DP of 1 or 2 of less than 2:3 (C3/L11-13). The examples in Tables I-IV only compare the syrup of the present invention to one made without alditols having a DP of 3 or greater. Thus, since the reference allows for syrups containing alditols with a DP of 3 or greater, a closer comparison would have been with syrups containing alditols with the ratio disclosed in Reed et al. (C3/L11-13).

Second, the results of the inventive examples and comparative examples cannot be truly compared since there are various unfixed variables. For example, the inventive examples contain glycerin where the comparative examples do not. Further, the amount of sorbitol in the comparative examples is much higher than the amount in the inventive examples.

Third, it is unclear what the unexpected and surprising results are. The only discussion appears to be in paragraphs 87-89 which states that the overall cost of example 3 "may" be less than the comparative example C, that in example 4 it is "anticipated" that the shelf life would improve, and if a pellet gum would have been made with the comparative syrup it is "expected" it would have been too soft. These statements are conclusory without any evidence to support them. Unexpected results must be established by factual evidence; mere argument or conclusory statements in the specification do not suffice. *In re Geisler*, 116 F3d 1465, 1470, 43 USPQ2d 1362, 1365 (Fed. Circ. 1977) (quoting *In re De Blauwe*, 736 F2d 699, 705, 222 USPQ 191, 196 (Fed. Cir 1984)).

Applicant argues that Dogliotti does not teach how to formulate a chewing gum center using a syrup made by evaporating a mixture comprising sorbitol solution, glycerin and hydrogenated starch hydrolyzate syrup. However, note that while Dogliotti does not disclose all the feature of the present claimed invention or discloses different features from those presently claimed, Dogliotti is used as a teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention. *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely, coating cores of gum with a sugarless coating, and in combination with the primary reference, Reed et al. and the secondary reference, Cerestar, discloses the presently claimed invention. In this case, Reed et al. disclose a method of making a chewing gum composition A method of making a chewing gum composition comprising making a syrup by evaporating water from a mixture (C2/L47-48) comprising i) an aqueous sorbitol solution containing at least 50% sorbitol (C2/L48-49); a plasticizing agent selected from the group consisting of glycerin, propylene glycol and mixtures thereof (C2/L49-51); and a hydrogenated starch hydrolyzate (see maltitol, C5/L8-12), wherein the final evaporated syrup composition comprises less than 10% moisture (C5/L57-60), about 5% to about 20% plasticizing agent (see about 17% to 40% glycerin, C5/L38), at least 50% sorbitol (see about 55% to about 80% sorbitol, C5/L37-38), about 3% to about 25% maltitol (see about 3% to about 10% maltitol, C5/L39); mixing the syrup with gum base and additional chewing gum ingredients to produce the chewing gum composition (C2/L53-55). Cerestar teaches a maltitol syrup (i.e. Maltidex M 16311) containing high maltitol content (see 76% on a dry basis, "Typical data") and hydrogenated oligosaccharides having a DP of 3 or greater (see

22% on a dry basis, "Typical data") for use in chewing gum applications as an anticrystallization agent.

Applicant argues that there is no suggestion in Reed, Cerestar, or Dogliotti that the same syrup can be used to make a gum composition that is formed into sticks, and then used to make a second gum formulation that is made into coated chewing gum products. However, note that while Dogliotti does not disclose all the feature of the present claimed invention or discloses different features from those presently claimed, Dogliotti is used as a teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention. *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely, coating cores of gum with a sugarless coating, and in combination with the primary reference, Reed et al. and the secondary reference, Cerestar, discloses the presently claimed invention. In the instant case, modified Reed teaches a method of making a gum composition using a syrup comprising sorbitol, plasticizing agent and hydrogenated starch hydrolyzate and forming the composition into sticks, pellets or chunks (C9/L33-39).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Gwartney whose telephone number is (571) 270-3874. The examiner can normally be reached on Monday - Thursday;7:30AM - 5:00PM EST, working alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. G./
Examiner, Art Unit 1794

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794